

**Causation, obligation and argument structure: On the nature of little v**

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## **Causation, obligation and argument structure: On the nature of little v \***

**Abstract:** As shown by Kayne (1975), Romance causatives with *faire* fall into two classes, the *faire infinitif* (FI) and *faire par* (FP). We argue from Italian data that the properties of the two classes depend on the nature of the complement of *fare*: FIs embed a vP, FPs a nominalized VP. The syntactic and semantic characteristics of these complements account straightforwardly for well-known differences between FIs and FPs, including the previously untreated 'obligation' requirement in the FI, absent in the FP. Moreover our analysis accounts for another subtle restriction on the formation of FPs, namely the existence of an animacy requirement on the subject of *fare*, absent in the FI. Finally, we argue that only FPs can undergo passivization; this accounts for a previously unobserved asymmetry in passivizability of causatives of unergative and unaccusative intransitive verbs.

**Keywords:** causative, Italian, unaccusative, unergative, Agent, passive, case

## 1 Introduction

Since the introduction of the ‘little  $v$ ’ hypothesis in the early 1990s (Hale & Keyser 1993, Kratzer 1993, 1996, Chomsky 1995), one of its immediate applications has been in the analysis of affixal causative morphology in languages like Malagasy, Japanese, Turkish, Finnish and Persian (Travis 1994, Harley 1995, Kural 1996, Megerdumian 2002, Pylkannen 2002, among others). According to the vP hypothesis, external arguments are not projected as true arguments of their verbs, but rather of a ‘light’ verbal projection dominating VP. In the analysis of affixal causatives, the proposal has been that the additional Agent argument of a causativized verb appears as the result of the addition of an extra vP. The causative morphology is the spell-out of the extra  $v^{\circ}$  head, affixed to the main verb complex as it head-moves up the tree.

Romance causative verbs like Italian *fare* are not morphological affixes, but they exhibit several properties that suggest that they are not always ‘main’ verbs. For instance, causativized clauses behave as a single case-marking domain.<sup>1</sup> True main verb causatives like *permettere* ‘permit’ or *ordinare*, ‘order’ show no such effects. Indeed, previous analyses of *fare* have relied on treating it as a sort of affixal causative, exploiting incorporation to capture some of the clause-union effects with respect to case and thematic roles (Guasti 1996).

In this paper, causativizing *fare* is treated as the (non-affixal) realization of a causative little  $v^{\circ}$  head. That in itself is a natural and unsurprising extension of the affixal-causative analyses described above. However, the original investigation of Romance causatives by Kayne (1975) revealed many subtle properties that have been the subject of a large literature. With Ippolito (2000) and Landau (2002), we show that the introduction of vP allows a natural account of Kayne’s two distinct classes of causatives, the *faire infinitif* type and the *faire par* type, without recourse to any lexicon-internal operations on argument structure, which have been a mainstay of previous analyses. We argue that a refinement of the little  $v^{\circ}$  approach involving multiple types of  $v^{\circ}$  permits a fine-grained analysis from which certain subtle properties, previously untreated, simply fall out. Further, the different properties of the  $v^{\circ}$  heads proposed here predict certain interactions between *fare* and its complements, and this

suggests an account of a previously unnoticed constellation of facts concerning the interaction of *faire* with unaccusative and unergative verbs.

## 2 Background

Since Kayne (1975), it has been recognized that Romance causatives with *faire* fall into two classes, the *faire par* (FP) and *faire infinitif* (FI). In French causatives, there are two possible case-markers for the embedded Causee: the preposition *par* ‘by’ (FP), or the preposition *à*, ‘to’ (FI).<sup>2</sup> Kayne showed that the difference in preposition corresponds to several syntactic and semantic differences between the two types of causative.

Non-passivizable idioms like those illustrated in (1)-(3) below, occur in the FI construction, but cannot be interpreted idiomatically in the FP construction (Kayne 1975: 235):

- (1) Sa famille a cassé la croûte.  
His family has broken the crust.  
“His family had a snack”.
- (2) Il a fait cassé la croûte à sa famille  
He had made break the crust to his family.  
“He had his family have a snack.”
- (3) #Il a fait cassé la croûte par sa famille.  
He had made break the crust by his family.  
“He had his family have a snack.”

Second, the Causee can have an inalienable possession relationship with the embedded object in the FI, but not in the FP (1975:236):

- (4) a. Elle fera lever la main à Jean.  
 She will make raise the hand to John.  
 “She will have John raise his hand.”
- b. #Elle fera lever la main par Jean.  
 She will make raise the hand by John.  
 “She will have John raise his hand<sup>3</sup>.”

A third difference between FP and FI, observed by Burzio (1986:250), has to do with binding. The *a*-phrase Causee in the FI can bind into the embedded object, while the *da*-phrase cannot, as we show below with bound variable pronouns:

- (5) a. Gianni<sub>j</sub> ha fatto temperare la sua<sub>i/j</sub> matita a ogni ragazzo<sub>i</sub>.  
 Gianni has made shapen the his pencil to every boy.  
 “Gianni had every boy sharpen his pencil.”
- b. Gianni<sub>i</sub> ha fatto temperare la sua<sub>\*i/j</sub> matita da ogni ragazzo<sub>i</sub>.  
 Gianni has made sharpen the his pencil to every boy.  
 “Gianni<sub>j</sub> had his<sub>\*i/j</sub> pencil sharpened by every boy<sub>i</sub>.”

In (5)a, *a ogni ragazzo*, ‘to every boy’ can bind the pronoun *sua* ‘his’ in the embedded object, whereas in (5)b, *da ogni ragazzo* cannot.

Fourth, Burzio (1986:228) argues that in the FP construction, the *da*-phrase is optional, while the *a*-phrase in the FI is not. Guasti (1996) gives an additional argument to this effect from Pearce (1990). Recall that the FI allows idiomatic interpretations of non-passivizable idioms, while the FP does not. An example from Italian suggested by a reviewer is in (6) below:

- (6) a. Maria ha fatto togliere le castagne dal fuoco a Luca.  
 Maria has made take.out the chestnuts from.the fire to Luca.  
 “Maria had Luca solve the problems.”
- b. Maria ha fatto togliere le castagne dal fuoco da Luca.

Maria has made take.out the chestnuts from.the fire by Luca.

“Maria had the chestnuts removed from the fire by Luca

\* “Maria had the problems solved by Luca.”

In (6)a above, we see that with the FI the ‘idiomatic’ reading of *togliere le castagne dal fuoco*, ‘solve the problems’ is available, but in the FP in (6)b, it is not—only the literal ‘take out the chestnuts’ interpretation is possible. Crucially, when we see a causative of *togliere le castagne dal fuoco* without a Causee, as in (7) below, only the ‘take out the chestnuts’ interpretation, not the ‘solve the problems’ interpretation is available, showing that in Causee-less structures, the construction is interpreted like an FP sentence, not like an FI one:

(7) Maria ha fatto togliere le castagne dal fuoco

Maria has made take.out the chestnuts from.the fire

“Maria had the chestnuts removed from the fire

\* “Maria had the problems solved”

If the embedded clause contains no Causee, therefore, we conclude that it must be a case of FP.

Fifth, Kayne (1975: 237) observes that transitive verbs which cannot undergo passivization also cannot occur in the FP; for instance, the verb *quitter*, ‘leave’, when it takes a locative object, is non-passivizable, and is fine embedded in the FI but not in the FP:

(8) a. Jean quittera la maison.

John will.leave the house.

b. \*La maison sera quittée par Jean.

\*The house will be left by John.

c. Je ferai quitter la maison à Jean/\*par Jean.

I will.make leave the house to John/\*by John.<sup>4</sup>

Finally, Kayne (1975: 239) notes that there is a semantic difference between the FI and the FP. In the two sentences in (9), he observes that the FI “implies a more direct relation between ‘Marie’ and ‘the drinking’” than the FP.

(9) Marie fera boire cette eau par son chien/à son chien.

Marie will make drink this water by her dog/to her dog.

“Maria will have this water drunk by her dog / her dog drink this water.”

As in the analyses of Alsina (1992), Guasti (1996) and Ippolito (2000), we aim to include this semantic characterization in our account of the two constructions. Kayne’s observed ‘direct relation’ between the subject and the embedded event is in fact a sense of obligation, as pointed out by Hyman and Zimmer (1975). The matrix subject of *fare* in the FI obliges the subject of the embedded verb to perform the relevant action, while in the FP, the optional *by*-phrase DP simply provides additional information about the caused event.

We can see this effect at work if we choose sentences where encyclopedic knowledge about social norms either facilitates or inhibits the availability of the obligation interpretation, due to the situational roles of the matrix subject and the Causee, as in the following example:

(10) a. Gianni ha fatto riparare la macchina a Mario/da Mario.

John got Mario to repair the car.

b. Gianni ha fatto riparare la macchina ??al meccanico di via Fiume.

/dal meccanico di via Fiume.

??John had the mechanic in Fiume St. repair the car.

John had the car repaired by the mechanic in Fiume St.

In (10)b, the FI with *al meccanico* as the Causee seems peculiar because it is the job of mechanics to repair cars; in the typical case, one does not oblige a mechanic to repair one's car. In (10)a, on the other hand, the FP with *dal meccanico* is natural because the FP construction does not entail obligation on the part of the Causee. Intuitively, in the FI construction, what is

being caused by the matrix subject is the entire event of ‘the mechanic repairing the car’; while in the FP construction, what is being caused is simply ‘the repair of the car’, with the agent of the repair possibly unspecified. We address this effect in § 4 below.

The key differences we have so far observed between FP and FI are as follows:

- (11) A. The Causee of a transitive embedded verb is marked with dative case in the FI, and by a preposition *da* in FP (in Italian).
- B. Non-passivizable idioms are available in the FI but not in the FP.
- C. The *a*-phrase in the FI can bind the embedded object, while the FP *da*-phrase cannot.
- D. The Causee may be omitted in the FP but not the FI.
- E. Non-passivizable verbs are acceptable in the FI but not the FP.
- F. There is a sense of obligation on the Causee in the FI but not in the FP.

The general thrust of most extant approaches to these contrasts is that in the FI causatives, the complete argument structure of the embedded verb is present, including the agent argument. In the FP causatives, on the other hand, the embedded verb only brings its internal arguments with it; the *da*-phrase is a PP adjunct.

The differences noted above are intended to fall out from this general approach, no matter what specific implementation is proposed. A, B, C, and D are accounted for as follows:

- (12) A. In the FI, the dative case which the agent argument receives is assigned by the normal structural case-marking mechanisms of the clause, while the *da*-phrase, as an adjunct, is independently introduced and case-marked by a preposition.
- B. If the idiomatic interpretation of the embedded verb depends on the entire argument structure being present, idioms should be possible in the FI, but not in the FP.
- C. If the adjunct *da*-marked Causee in the FP is a true PP, then it will not be able to c-command out of the PP and bind into the embedded object, while the *a*-phrase Causee in the FI, which is simply a case-marked DP, should be able to bind into it.<sup>5</sup>



D. Since the *da*-phrase Causee is an adjunct, not an argument, it may be omitted in the FP, while the *a*-phrase Causee of the FI may not.

Property E—the inability to make FP constructions from non-passivizable verbs—has received less attention in the literature, and its treatment is more theory-dependent, but it is clear how it could fit into the general approach: the absence of the external argument from the embedded verb in the FP construction and its representation in an adjunct *by*-phrase is subject to the same constraints as the absence of the external argument and its representation in an adjunct *by*-phrase in a passive verb. In Kayne’s original treatment, this falls out because the external-argument removing transformation just *is* passivization; Zubizarreta (1985) and subsequent analyses involving lexical operations take a similar tack.

In our view, the trickiest effect to account for satisfactorily is F, the sense of obligation present in the FI. This effect is closely related to the most theoretically unattractive aspect of the previous proposals of Alsina (1992) and Guasti (1996). In both these proposals, the obligation effect is intended to fall out from a double-theta-role assignment to the FI Causee: one role is assigned from the causative verb, and another from the embedded verb, the normal agent role. The obligation effect is the reflex of this odd semantic situation. Double-theta-assignment, however, is problematic for theory-internal reasons, and both Alsina and Guasti must employ extra or unusual technology to make it possible. We review their proposals below.

In contrast, in a constructionalist approach to argument structure, in which theta-roles are a reflex of a particular structural relation between an argument and a head, (see Hale & Keyser 1993, van Hout 1996, Borer 1998, Ritter and Rosen 1998, among many others), the double-theta-role approach is simply impossible to implement. In such an approach, the presence or absence of a sense of obligation is a consequence of the different structures embedded by the causative verb in the FI and the FP: different structures entail different theta-relations. This is the essential thrust of our proposal.

The paper is structured as follows. In § 3, we review the lexicalist accounts of Zubizarreta (1985), Alsina (1992) and Guasti (1996), and the more recent vP-based treatment of Ippolito (2000), and the problems we perceive with each. In § 4, we present an analysis of the

two constructions, in which the FI embeds a vP complete with agent, while the FP embeds a vP-less structure. The obligation effect is accounted for by an independently necessary distinction between two kinds of agentive  $v^\circ$ : a  $v_{DO}$  and a  $v_{CAUSE}$ . In § 5, we discuss the FP in more detail. We show an unexpected interaction between the animacy of the subject of *fare* and the availability of an FP causative, and relate it to the  $v_{DO}$  vs  $v_{CAUSE}$  distinction motivated earlier. In § 6, we provide an account of the case-marking patterns in the FI. The case-marking considerations lead us to an investigation of passives of causatives in § 7. We present a new paradigm of data which provides support for our analysis of the FP construction and the structural treatment of the unaccusative/unergative distinction in general.

### **3 Previous approaches to the FI/FP distinction and obligation**

For Zubizarreta (1985) and Alsina (1992), causative formation is a lexical process. In Zubizarreta's approach, the causative verb is a 'morphosyntactic affix' (though not a morphophonological one). It is attached to its embedded verb presyntactically, by a lexical operation, resulting in the formation of a complex predicate, with two potential effects on the argument structure of the embedded verb. In the FP, as in passivization, the causative morpheme prevents the syntactic realization of the (lexically present) external argument of the embedded verb. In the FI, in contrast, the causative morpheme triggers internalization of the embedded external argument, changing its status to that of an internal indirect object. The entire complex predicate heads a single  $V^\circ$  which projects a monoclausal VP.

For Alsina, unlike Zubizarreta, the causative verb itself has three theta-roles to assign: an external Causer argument, an internal Patient argument, and an Event argument. The Patient argument of the causative verb 'fuses' with one of the two arguments of an embedded transitive verb. If it fuses with the logical subject of the embedded verb, the FI is created (with an 'obligation effect'); if it fuses with the logical object, the result is an FP. Moreover, fusion with the logical object can only occur when the logical subject of the embedded verb has been lexically suppressed. Causativization is implemented entirely in the lexicon.

### 3.1 *Guasti: Incorporation*

Guasti (1996:303) argues against Alsina's approach to the FP. Her objection is primarily based on the fact that the interpretation of the embedded object is entirely independent of the matrix causative verb—the semantics of the embedded object are dependent on the embedded verb only. She concludes that the embedded object does not receive a theta-role from the causative verb via fusion or any other mechanism. For her, causative formation is syntactic embedding, of the familiar type. In the FI, however, the embedded subject does receive a theta-role from the causative verb, by virtue of syntactic incorporation of the embedded verb into the causative verb. In Guasti's analysis, then, there are two verbs *fare*, one for the FI with three theta-roles, and one for the FP with just two. Otherwise, her account is similar to Alsina's in that it also crucially relies on a lexical operation to suppress the embedded subject in FPs, and involves double-theta assignment in the FI.<sup>6</sup>

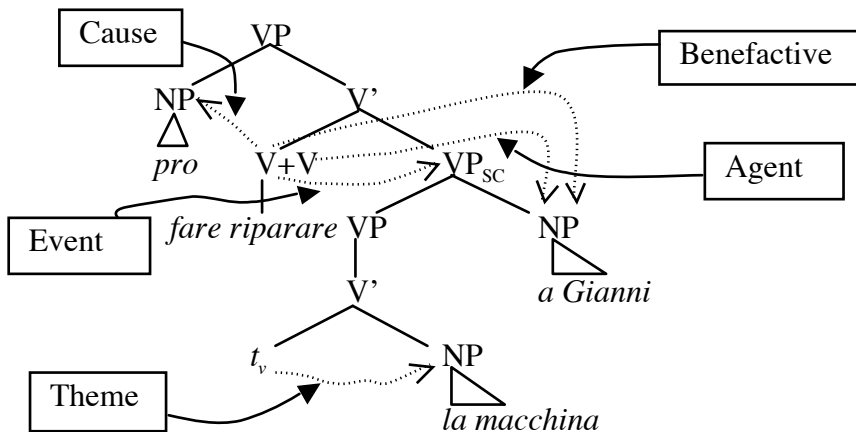
As noted above, Guasti motivates the theta-role fusion in the FI by positing a syntactic incorporation process. The lower verb incorporates into the causative verb, and then together they assign a theta-role each to the Causee under government. (The causative verb later exorporates from the complex  $V^\circ$  and head-moves to  $T^\circ$ .) The double-theta role assignment accounts for the obligation effect in essentially the same way as Alsina, yet allows causative formation to be syntactic, involving complementation. For Guasti, the theta-role assigned to the Causee in the FI by the causative verb is not Patient, but rather Benefactive/Malefactive.

In contrast to Alsina, as noted above, Guasti's analysis of the FP causative involves no theta-role fusion, and the causative verb *fare* in the FP assigns only two theta roles: Agent, to its subject, and Event, to the VP that it embeds. The embedded object receives its theta-role exclusively from the embedded verb. The subject theta-role of the embedded verb is lexically suppressed, as it is in passives. The *da*-phrase is optionally adjoined to the embedded VP. The analyses of the FI and FP causatives proposed by Guasti are illustrated in (13) below:

(13) a. Guasti: derivation of FI:

*fare*<sub>1</sub> <<causer, event> benefactive>

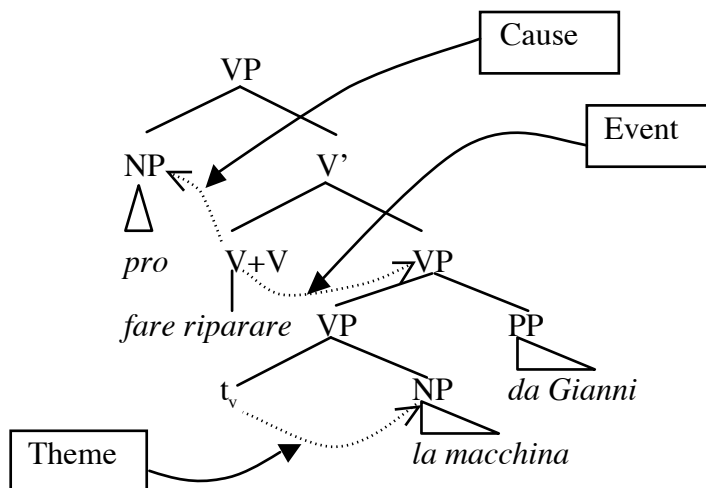
*riparare* <agent, theme>



b. Guasti: derivation of FP:

*fare*<sub>2</sub> <causer, event>

*riparare* <theme> (from *riparare* <agent, theme> via lexical operation)



Although Guasti's approach moves closer to a syntactic account, via the use of incorporation and government, it still relies crucially on the lexical operation of agent suppression in order to account for the FP construction.

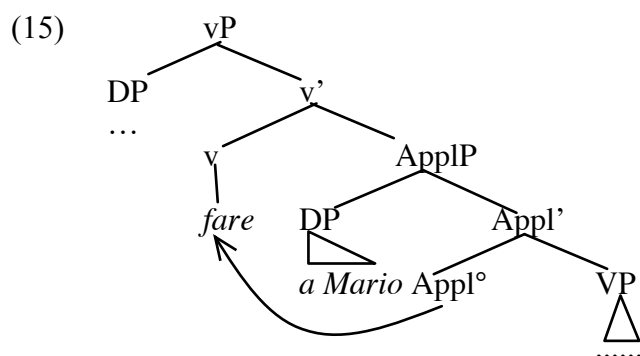
### 3.2 Ippolito: FIs are benefactives

Ippolito (2000) argues that an incorporation account is difficult to maintain because the causative verb and the embedded verb are not an  $X^\circ$  of the type normally created by head-movement. Adverbial elements can intervene between *fare* and the embedded verb, as in (14):

- (14) Arturo ha fatto **ancora una volta** riparare la macchina a Corrado.  
 Arturo has made again one time repair the car to Corrado.  
 “Arturo had Corrado repair the car again.”

On normal assumptions about adverb placement, the presence of an intervening adverb shows that the causative *fare* and the embedded verb *riparare* ‘repair’ are independent constituents, with at least enough intervening structure for an adverb to adjoin in between.<sup>7</sup>

Ippolito’s account reworks aspects of Guasti’s theta-theoretic account in a vP syntax. Rather than allow the causative verb to assign two internal theta-roles, Ippolito has the FI causative verb select for an applicative light verb, which assigns a benefactive/malefactive role to the element in its specifier, the “Causee”, as well as assigning inherent dative case to it. Subsequently, the head of that applicative phrase incorporates into the causative verb, with consequences for passivization and clitic climbing.



In the FP, *fare* does not select for the applicative head, so there is no dative-marked DP; optionally, a *da*-phrase may be adjoined to VP. The difference in selectional properties of *fare* between the FI and FP is the non-theta-theoretic equivalent of Guasti’s *fare*<sub>1</sub> and *fare*<sub>2</sub>.

In neither the FP nor the FI is the Causee part of the argument structure of the embedded verb — that is, unlike Guasti’s account, the Agent role of the embedded verb is not assigned to the Causee at any point. Ippolito adopts the vP hypothesis of Hale and Keyser, Kratzer and others, according to which Agents are not part of the argument structure of the lexical verb, but rather appear in the specifier of a light verbal projection. On this approach, eliminating the Agent argument does not require a lexical operation, but simply involves selecting for a VP, rather than a vP. For Ippolito, *fare*, whether the FI or FP type, does not embed the vP attached to the lexical verb. Consequently the embedded verb’s Agent argument is necessarily absent.

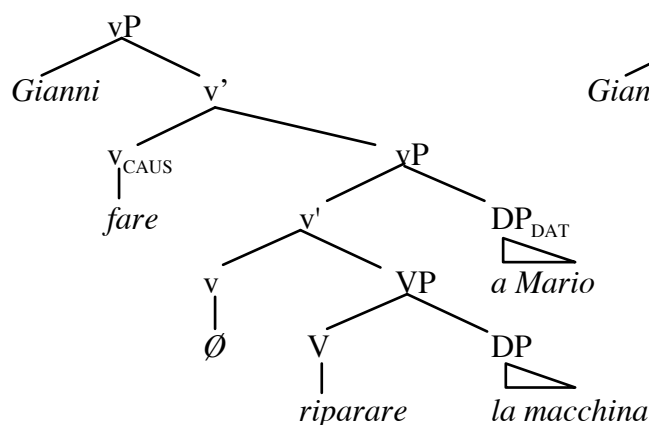
Below, we adopt a version of Ippolito’s account of the FP, according to which the embedded verb’s Causee argument is absent due to the absence of the agent-projecting vP associated with the embedded verb—in essence, a modern version of Burzio’s (1986) account. We argue, however, that her account of the FI cannot be maintained. An approach like Ippolito’s in which the Causee in the FI is lexically assigned dative case cannot account for the case-marking alternations in causatives of intransitive verbs, where the Causee receives accusative case, rather than dative. See § 6 for detailed discussion.

As noted above, with the theoretical innovation of an external-argument-selecting vP, the possibility arises of creating a purely syntactic account of the difference between the FP and the FI. Unlike Ippolito’s account, we simply retain the complete argument structure for the embedded verb in the FI, including the external-argument-assigning vP. The crucial difference between the FI and the FP is the absence of that external-argument-assigning vP in the latter.

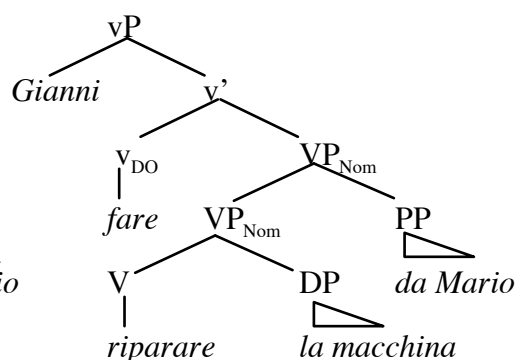
#### **4 Analysis of differences between FI & FP**

The crucial substructures that we assume distinguish the FI and FP are in (16) below (In (16)b,  $VP_{Nom}$  stands for a nominalized VP; see discussion in § 5):

(16) a. FI



b. FP



Here, we follow Guasti (as does Landau 2002) in assuming that Italian exhibits rightward specifiers of vP, which is why the dative Causee in (16)a linearly follows the embedded verb and its object.<sup>8</sup> As on Ippolito's analysis, the crucial 'suppression' of the subject in the FP is a simple consequence of the failure to embed vP under *fare* in that structure. In (16)b, the *da*-phrase is a PP right-adjoined to an embedded VP.<sup>9</sup> No lexical operation is necessary, and the adjunct position and optionality of the *by*-phrase hence fall out naturally.

The structural consequences for binding in the FI and the FP construction also fall out without the need of further machinery. The dative-case-marked DP in spec-vP in the FI will c-command the base-position of the embedded object; consequently, the asymmetric binding facts in (5) above are accounted for straightforwardly. In the FP, the DP will not c-command out of the *da*-phrase, which is an adjoined PP, and so will not be able to bind the object.<sup>10, 11</sup>

The availability of embedded idioms and the sense of obligation on the Causee in the FI but not the FP remain to be explained. Because the entire vP associated with the embedded verb is present in FIs, it is natural that idiomatic interpretations are available. In § 5, we discuss the absence of idiomatic interpretations in the FP. In § 4.2, we consider the question of obligation. Since we have adopted the vP approach, we cannot appeal to lexical operations such as theta-role fusion. Rather, the obligation effect must follow from independent differences between FP and FI, as outlined above. In the trees in (16), a distinction is made between the type of v<sup>o</sup> realized by *fare* in each instance: v<sub>CAUS</sub> in FI, and v<sub>DO</sub> in FP. We next examine the nature, motivation, and consequences of this ontology of v<sup>o</sup>.

#### 4.1 Flavors of $v^\circ$ and their structural consequences

Hale and Keyser (1993 et seq.) gloss their external-argument selecting  $v^\circ$  differently in different constructions. Unergative verbs like *run*, for instance, are paraphrased as *DO a run*, while change of state verbs like *open* are paraphrased as *MAKE* or *CAUSE open*. We argue, with Harley (1999, 2005), that this difference in ‘gloss’, rather than being simply a descriptive convenience, actually reflects structurally distinct primitives of the  $v^\circ$  inventory.

Folli and Harley (2005) argue that the light verb which introduces external arguments comes in different ‘flavors’. There, they propose that there is a external-argument-introducing little  $v_{DO}$  which requires that its subject is an Agent rather than a Cause. This little  $v$  is distinct from little  $v_{CAUSE}$  which places no agency restrictions on its external argument. Their proposal is based on the observation that a change in the animacy of the subject is associated with a change in argument structure in examples like the following:

- (17) a. John ate the apple (up).  
b. The sea ate the beach \*(away).  
c. Gianni ha/si é mangiato una mela.  
G. has/REFL is eaten an apple.  
‘Gianni has eaten/eaten up an apple.’  
d. Il mare si é/\*ha mangiato la spiaggia.  
The sea REFL is/\*has eat.PPL the beach.  
‘The sea ate the beach.’

In (17)a-b, when the subject of a verb of consumption like *eat* is inanimate (e.g. *the sea*) and hence not agentive, a small clause structure is required in English: a secondary predicate in the form of a particle is required. Similar facts obtain in Italian, as in (17)c-d, where the sentence with an inanimate subject is infelicitous without the reflexive morpheme *si* attached to the verb. (Zubzaretta 1987, Zagana 1996, Sanz 2000, Folli 2002 argue that *si* marks telicity in Italian and Spanish.) Folli and Harley analyze this paradigm by assuming that different



external-argument-selecting little *vs* also select for different kinds of complements: true agent-selecting  $v_{DO}$  takes a nominal complement, while the  $v_{CAUSE}$  with a Causer external argument requires a small-clause complement.<sup>12</sup> Consequently, when a DP which can only be a Causer, not an Agent, appears as an external argument of *vP*, it forces an interpretation on the sentence according to which  $v^\circ = v_{CAUSE}$  and this in turn requires the complement to  $v^\circ$  to be a small clause.

The semantic and structural properties of  $v_{DO}$  and  $v_{CAUSE}$  are summarized below:

(18)

Flavor of $v^\circ$	Specifier	Complement
$v_{DO}$	Agent	Nominal or Small Clause complement
$v_{CAUSE}$	Causer or Agent	Small Clause complement

It is important to recognize that the Causer interpretation assigned to its specifier by  $v_{CAUSE}$  can of course be assigned to an animate, intentional entity.<sup>13</sup> What is crucial here is that a Causer *may* be an inanimate entity.<sup>14</sup> The occupant of *spec-v<sub>DO</sub>*, on the other hand, must be an Agent, and an Agent can only be an inanimate entity in quite restricted circumstances.

Our notion of Agent is crucially dependent on the inherent ability of an entity bearing the role Agent to generate the activity denoted by the verb by virtue of that entity's inherent properties—what Higginbotham (1997) refers to as its *teleological* capabilities. In other words, Agents can create events out of whole cloth, requiring nothing external to their own potential.

In the general case, Agents are also animate and intentional; after all, many verbal actions are such that animacy and intentionality are two of the inherent properties required to generate them. Consequently, switching inanimate for animate external arguments usually has consequences for Agenthood. However, there are some well-known cases where inanimates, or non-intentional animates, may be Agents in this technical sense. In particular, the subjects of so-called 'theme unergatives' (Levin and Rappaport 1995) must be Agents, though they are certainly not necessarily animate. The canonical examples are verbs of sound emission: *whistle*, *hum*, *squeak*, *click*, *ring*, etc.—undeniably unergative, yet allowing an inanimate subject. However, the teleological requirement holds: inanimate subjects of these verbs must be inherently capable of generating the noise described by the verb root—*The train whistled* is fine

because trains are built with whistles in them. Bresnan (1994) observed that when the subject of such a verb is not teleologically capable of producing the noise, a different syntactic structure is required, as in *The bullet whistled \*(into the room)*.

Similar remarks apply to unergative verbs such as *cough*, *shiver* and *blush*, whose subjects must be animate, but need not be intentional. Animacy in this case is a property that any entity must have in order to be teleologically capable of generating these verbal actions.<sup>15,16</sup>

So what we see from (18) above is that  $v_{DO}$  does not restrict the category of its complement — nominal complements (as in *John ate the cake*) are possible, as are small clause complements (as in *John ate the cake up*). Conversely,  $v_{CAUSE}$  restricts its complements to small clauses.<sup>17</sup> On the other hand, little  $v_{DO}$  restricts its specifier position to Agents, while the specifiers of  $v_{CAUSE}$  are not so restricted. The conjunction of these restrictions has two consequences:

- (19) a. If a  $v^\circ$  takes an inanimate subject, in the unmarked case it must be  $v_{CAUSE}$  and hence take a small clause complement.
- b. If a  $v^\circ$  takes a nominal complement, it will necessarily be  $v_{DO}$ , and hence require an Agent external argument, i.e. in the unmarked case an animate one.

Consequence (19)a explains the appearance of *up* and *si* in the verbs of consumption with inanimate subjects described by Folli and Harley (2005). We will come to the predictions made by consequence (19)b in the discussion of FP below.

#### 4.2 *Flavors of v and the obligation effect*

Given the validity of the  $v_{DO}/v_{CAUSE}$  distinction, we can exploit it in the analysis of the obligation effect. We propose that in an FI with an embedded transitive, eventive verb, *fare* takes a vP headed by  $v_{DO}$  as its complement. If this is the case, we can capture the obligation effect observed above. If  $v_{DO}$  heads the vP in the complement of *fare*, it will take an intentional Agent subject. The only way to cause an Agent to intentionally do something is to oblige it to.

Support for this position comes from the following constellation of facts presented in (20)-(22). First, it is impossible for FI to embed a vP with a Causer external argument, rather than an Agent—the dative argument, in other words, must be intentional.

- (20) a. Maria/il ramo ha rotto la finestra.  
Maria/The branch broke the window.
- b. Gianni ha fatto rompere la finestra a Maria/\*al ramo.  
John got Maria/\*the branch to break the window.
- c. Il tecnico/Il programma ha disinfettato il computer.  
The technician/The program disinfected the computer.
- d. Gianni ha fatto disinfettare il computer al tecnico/\*al programma.  
John got the technician/\*the program to disinfect the computer.

Even though either an intentional or non-intentional external argument is appropriate with the transitive verbs in ((20)a) and ((20)c), these verbs may not be embedded under FI with a non-intentional subject, as shown in ((20)b) and ((20)d).

Intuitively, in the FI construction, the subject of *fare* is causing the whole embedded event: X DO Y. In other words, the subject of *fare* is bringing about an event that is accomplished spontaneously and independently by another entity—the subject of *fare* is creating such an event. The typical scenario for such creation arises when the subject of *fare* obliges the subject of the embedded verb to execute the embedded event. Hence, the implication is that the subject of *fare* is obliging X to participate.

Further support for this position comes from the behavior of causatives of psych-verbs like *disturbare* ‘disturb’ or *assorbire* ‘absorb’. These verbs are not acceptable under *fare*, no matter whether the subject is animate or inanimate (similar facts were originally noted in French by Kayne 1975: 252; see also Herschensohn 1992 and Legendre 1993):

- (21) a. La discussione/Gianni ha assorbito Maria.  
The discussion/Gianni has absorbed Maria.

- b. \*La lezione/\*La maestra ha fatto assorbire Maria alla discussione/a Gianni.  
The lesson/The teacher has made absorbed Maria to-the discussion/to Gianni.
- c. La guerra/Gianni ha disturbato Maria.  
The war/Gianni has disturbed Maria.
- d. \*Il programma televisivo/\*Marco ha fatto disturbare Maria alla guerra/a Gianni.  
The television program/Marco has made disturbed Maria to-the war/to Gianni.

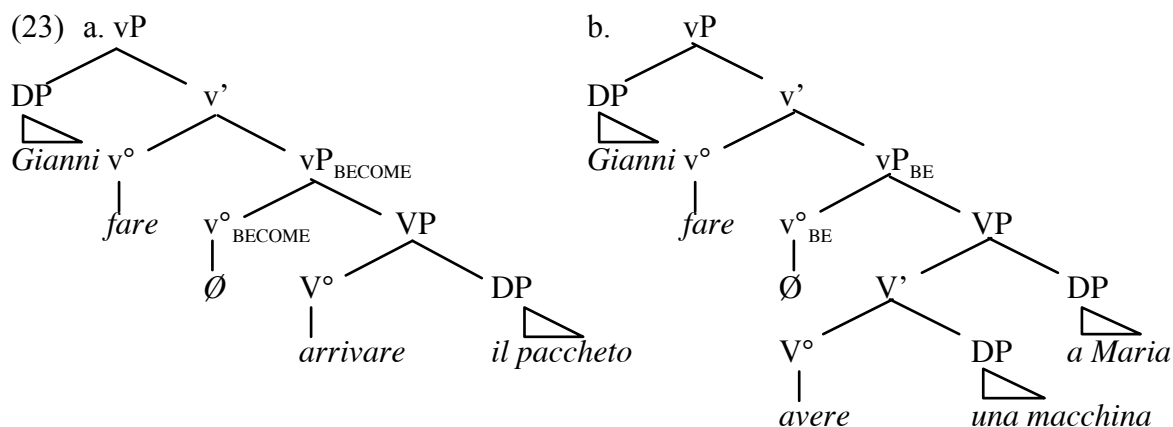
This effect can be explained in the following way under the assumptions presented here. If internally-caused verbs like these object experiencer psych-verbs require a  $v_{\text{CAUSE}}$  to introduce its external argument—that is, if the external arguments of these verbs are necessarily Causes (i.e. stimuli) and can never be Agents (i.e. direct initiators)—then these verbs should be inherently incompatible as embedded verbs in FI.<sup>18 19</sup> (Landau 2002 proposes an alternative, case-based account of these facts; we discuss his analysis in § 6 below when we discuss case-assignment.)

If the FI with a transitive complement requires a vP headed by  $v_{\text{DO}}$ , then we expect causatives of unergatives to be FIs, since on the Hale and Keyser analysis unergatives must include  $v_{\text{DO}}$ . As noted above, unergative verbs like *parlare* ‘talk’ can take non-intentional Agents if that Agent is an inherent cause of talking, i.e. as long as the Agent is teleologically able to talk (cf. Higginbotham 1997). However, such agents cannot be obliged to talk — and accordingly a causative of an unergative with a non-intentional agent is ungrammatical:<sup>20</sup>

- (22) a. Maria /La radio ha parlato dell’aviaria.  
Maria /The radio has talked of.the bird.flu.  
“Maria/The radio talked about bird flu.”
- b. Gianni ha fatto parlare Maria/\*la radio dell’aviaria.  
John has made speak Maria/\*the radio of.the bird.flu.  
“John made Maria/\*the radio speak about bird flu.”

Notice that in causatives of unergatives, the embedded subject *Maria* receives accusative, rather than dative case in example (22)b above. Clearly, the animacy restriction on the FI has nothing to do with the assignment of dative case; rather, it has to do with the semantic properties of the embedded structure. This fact is particularly problematic for an approach that links the obligation effect to the presence of an applicative, dative-assigning head, as for Ippolito (2000). See § 6 for our analysis of the case assignment properties of causatives.

Is it possible for the FI *fare* to take other types of vP complements than  $v_{DO}$ ? We have argued that it may not take  $v_{CAUSE}$ . Other classes of verbs, however, have other types of  $v^\circ$  in their argument structure. Perhaps most obviously, unaccusative verbs contain a  $v_{BECOME}$ , which select for a small clause complement and no external argument (Marantz 1997). Such verbs may be felicitously embedded under FI *fare*, as in the structure *Gianni ha fatto arrivare il pacchetto* ‘Gianni made the package arrive,’ the relevant part of which is illustrated in (23)a below. Similarly, we assume that the stative verbs such as *avere*, ‘have’, *temere*, ‘fear’, and *sentire*, ‘hear, sense’, contain a stative  $v_{BE}$  (Harley 1995, 2002), which also does not take an external argument and which again can be embedded under FI *fare*, as shown for *Gianni ha fatto avere una macchina a Maria*, ‘Gianni made Maria have a car’, illustrated in (23)b.



The FI *fare* light verb, then, can embed two types of vP: vPs which introduce eventualities whose initiation is not mediated by an external argument—the  $v_{BE}$  or  $v_{BECOME}$  type—and eventualities whose initiation is mediated by an external argument. The subject of *fare* in all cases is causing the entire embedded event. When the embedded event has no external

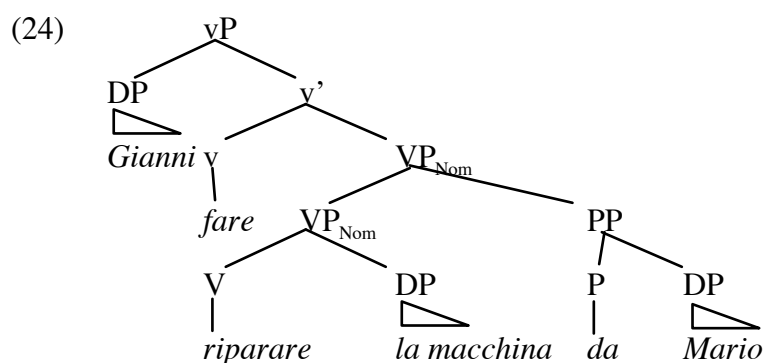
argument, the subject of *fare* simply initiates the embedded event itself. When the embedded event has an initiator of its own, the obligation effect comes into being. Only when the embedded causee itself has control over the event which it initiates—i.e. when it’s an Agent, a DOer—can the subject of *fare* be construed as creating the entire embedded event, by virtue of having control over the Agent through an obligation relation. When the embedded causee is a Cause, it is a stimulus—not in control of the event it initiates. The external argument of *fare* then may not be construed as causing the whole of the embedded event.

To sum up: What it means to *fare* an event is to create that event. Any intervening initiator of the embedded event must therefore both be under the influence of the subject of *fare*, and in control of the progress of the event—i.e., must be an Agent.

## 5 The FP causative

The central observation about FP from the literature (Kayne 1975:236-242) is that there are many parallels between the FP construction and the passive. Indeed, the *da*-phrase is the same as the adjoined *da*-phrase in a passive construction, in that it does not occupy an argument position. As we said above, in an agent-selecting light-verb framework, the non-argumental status of the *da*-phrase is naturally accounted for if we assume that the FP does not embed a vP.

As outlined above, we propose the following structure for the FP construction.



The embedded VP is structurally agentless, although of course for a verb like *riparare* ‘repair’ which implies an external cause, a *da*-phrase can be adjoined. In this sense, these VPs are like the nominalized verbs discussed in Marantz (1997). Nominalizations permit or forbid

an adjoined agent based on the encyclopedic content of the nominalized root, whether that agent is realized as a possessor of the DP or in a *by*-phrase, as shown in the examples below:

- (25) a. \*John's growth of tomatoes.  
 b. John's destruction of the city.  
 c. \*The growth of tomatoes by John.  
 d. The destruction of the city by John.

In fact, we wish to claim, with Guasti (1990) and Travis (1992), that FP embeds a nominalization, rather than a verbal form.<sup>21</sup> The VP in (24) is a gerundive, verbal noun, which denotes “the event of Xing”. In Italian, there are deverbal nominals that are morphologically indistinguishable from the infinitive form, as can be seen in the examples below:

- (26) a. [Questo continuo **parlare** dell'aviaria]<sub>DP</sub> infastidisce Marco.  
 [This continuous talking of bird.flu]<sub>DP</sub> bothers Marco  
 b. [Tutto quel **leggere** Dostojevsky]<sub>DP</sub> ha rovinato Marco.  
 [All that reading Dostojevsky]<sub>DP</sub> has wrecked Marco.

The claim that the VP embedded under *fare* in an FP construction is a nominal makes an interesting prediction about the nature of *fare* in FP. The selectional restrictions of  $v_{DO}$  and  $v_{CAUSE}$  outlined above in (19) predict that any  $v^\circ$  with a nominal complement must be  $v_{DO}$ . As noted above, Folli and Harley (2005) show that  $v_{DO}$  takes an Agent external argument, which in the general case enforces an intentionality restriction on its external argument — a Causer external argument, i.e. a non-intentional one, is incompatible with  $v_{DO}$ . Consequently, if the FP *fare* takes a nominal complement, then FP *fare* must necessarily be realizing  $v_{DO}$ . In accordance with (19)b, then, we expect that the FP *fare* must take an animate agentive external argument. In other words, the subject of *fare* in an FP construction can never be a Causer. This does seem to

be the case. Consider the examples in (27) below and similar examples from French in (28), noted but left unexplained by Kayne (1975:242) and Burzio (1986:268):

(27) a. La rabbia fece rompere il tavolo a Gianni/\*da Gianni.

The rage made break the table to Gianni/by Gianni.

“Rage made Gianni break the table.”

b. La generosità fece donare la casa a Gianni/\*da Gianni.

The generosity made give the house to Gianni/by Gianni.

“Generosity made Gianni donate the house.”

(28) La famine a fait manger des rats aux/\*par les habitants de la ville.

The famine has made eat of.the rats to.the/\*by the inhabitants of the city.

It’s clear that an inanimate subject of *fare* is possible in the FI, as shown in (27)-(28), but not in the FP. This is a necessary consequence of the complement to the FP *fare* being a nominal.

As in Marantz’s treatment of English nominalizations described above, we predict that the possibility of an adjunct *da* phrase depends upon the internal semantics of the (nominalized) verb root. Accordingly, a non-alternating unaccusative verb embedded in a *fare* construction *cannot* have a *da*-phrase associated with it:<sup>22</sup>

(29) \*Gianni ha fatto arrivare il pacchetto da Mario.

Gianni has made arrive a package by Mario.

The poorness of (29) is not due to a failure of *arrivare* to nominalize (because it certainly may: *L’arrivare cronicamente in ritardo é un brutto difetto*, ‘To chronically arrive late is a bad defect’), but rather to the impossibility of construing the *by*-phrase as referring to the internal argument of *arrivare*. The analysis also predicts that other verbs which do not allow external causation should not allow *da*-phrases in their FP variants. Stative verbs are bad with *da*-phrases, as seen in (30)a, although nominalizations of these verbs are acceptable (without *da*-phrases) in (30)b,c:



- (30) a. \*Gianni ha fatto avere una macchina da Maria.  
 Gianni has made have a car by Maria.
- b. \*The having of a car by Maria.
- c. L'aver una macchina (\*da parte di Maria) è utile.  
 The having of a car (\*by the part of Maria) is useful.

The same is true of transitive stative psych predicates, as observed by Marcantonio (1979) and Guasti (1993), which also lack an external-argument selecting *v*, and also don't allow a *by*-phrase in their nominal forms:<sup>23</sup>

- (31) a. \*Il metereologo ha fatto temere un disastro dai contadini.  
 The meteorologist has made fear a disaster by the farmers.  
 "The meteorologist got the farmers to fear a disaster."
- b. \*The fear(ing) of a disaster by the farmers.

Finally, we see a similar contrast with verbs of perception, which also do not involve a *v<sub>DO</sub>* in their lexical syntax. These, of course, contrast nicely with verbs of agentive perception, which can involve a *v<sub>DO</sub>* and do allow a *da*-phrase:<sup>24</sup>

- (32) Gianni ha fatto ascoltare/\*sentire il concerto da Maria.  
 Gianni has made listen/\*hear the concert by Maria.
- (33) a. Gianni ha fatto guardare/\*vedere l'eruzione da Maria.  
 Gianni has made watch/\*see the eruption by Maria.

These verbs, in fact, allow us to eliminate the other, commonly-proposed analysis of the FP, namely that they embed a passive (see also Guasti 1990). Verbs of perception and subject-experiencer psych-verbs may be passivized with a *da*-phrase, as in example (34) below, but as

shown above, they may never appear with a *da*-phrase in a causative. The FP therefore, does not involve an embedded passive, but rather an embedded nominal.

- (34) a. Il concerto è stato sentito da Maria.  
The concert was heard by Maria.
- b. Un disastro è stato temuto dai contadini.  
A disaster was feared by the farmers.

If the embedded verb in the FP is not passivized, however, the contrast between passivizable and non-passivizable idioms discovered by Kayne (see example (1) above) might seem mysterious. We argue that non-passivizable idioms cannot occur in the FP because the complete argument structure of the embedded verb is not present: the vP with which it usually occurs is absent in the embedded nominalized form. Non-passivizable idioms require the presence of their own  $v^\circ$ —likely the assignment of accusative case by vP is part of the idiom—while passivizable ones don't require the presence of their own  $v^\circ$ , as shown by the fact that they are available even with the passive  $v^\circ$ . Consequently, in nominalizations, where the root's usual  $v^\circ$  is absent, the passivizable idioms will still be interpretable, but the non-passivizable ones won't. This contrast shows up in English nominalizations, as well, as expected. The idioms in (35) are not passivizable, and lose their idiomatic reading in nominalizations; those in (36) are passivizable and remain idiomatic in nominalizations.

(35) Nominalizations of non-passivizable idioms:

- a. #Mary regretted the kicking of the bucket (by John).
- b. #Bill enjoyed his seeing of the light.
- c. #Sue regretted the biting of the big one by Bill.

(36) Nominalizations of passivizable idioms:

- a. Mary regretted the stacking of the deck (by Bill).
- b. John relished the crossing of t's and dotting of i's.
- c. John regretted the passing of the buck (by Sue).

While (36)a-c are not perfect, they're much better than (35)a-c, in the judgment of several English-speaking consultants.<sup>25</sup>

## 6 Case assignment

The central problem of case-marking in Italian causatives is the dative/accusative alternation on the embedded subject, depending on the transitivity of the embedded verb. When the embedded verb is transitive, the argumental embedded subject of the FI is marked with dative case, as we have seen. When the embedded verb is intransitive, the postverbal argumental embedded subject is marked with accusative case, as shown in (37).<sup>26</sup>

- (37) Gianni ha fatto correre **Maria**.  
Gianni has made run Maria.  
“Gianni had Maria run.”

To account for the case-marking patterns of the Italian FI, we propose to adopt a version of the account of case-checking proposed in Harley (1995) and adopted by Miyagawa (2001) for Japanese causatives, which show some similar properties to Italian. In Japanese, as well,

when an intransitive verb is embedded under a causative, the single embedded argument receives accusative case, and when a transitive verb is causativized, the embedded subject receives dative case and the embedded object is marked accusative, as illustrated in (38):

(38) a. *Intransitive embedded clause*

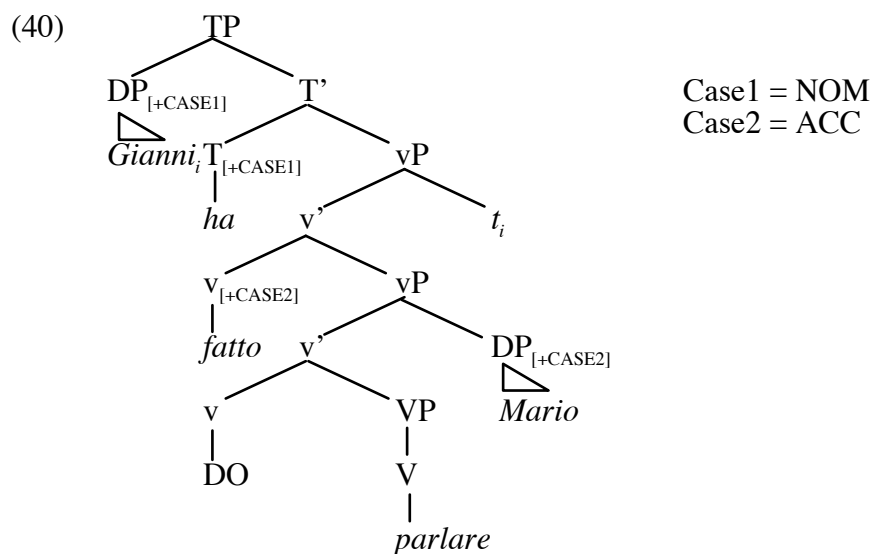
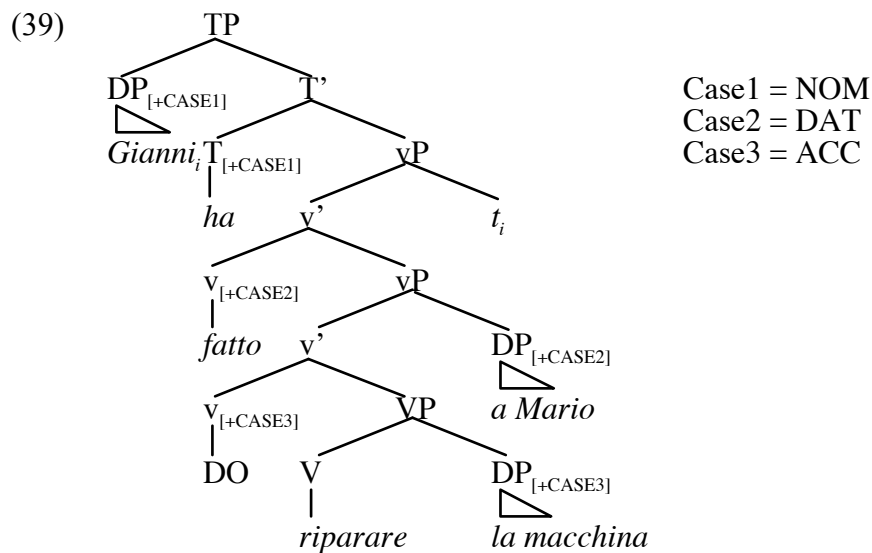
Calvin-ga     **Hobbes-o**     ik-ase-ta  
 Calvin-NOM   Hobbes-ACC   go-cause-past  
 “Calvin made Hobbes go.”

b. *Transitive embedded clause:*

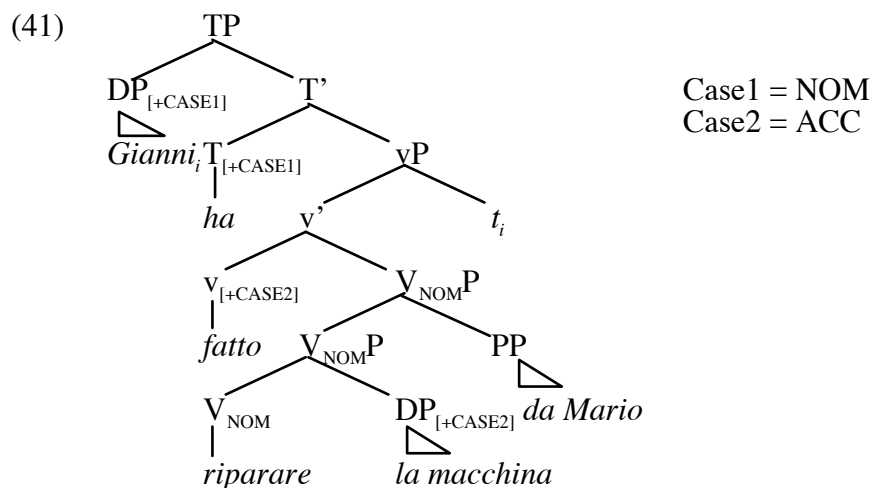
Calvin-ga     **Hobbes-ni**     piza-o             tabe-sase-ta  
 Calvin-NOM   Hobbes-DAT   pizza-ACC        eat-cause-past  
 “Calvin made Hobbes eat pizza.”

Descriptively, the case-marking domain of the causative sentence is that of a single clause, as argued by Zubizarreta (1985) and Burzio (1986), where two structurally case-marked arguments receive nominative and accusative, and three receive nominative, dative and accusative. According to the proposal in Harley (1995), following the ‘dependent case’ proposal of Marantz (1991), the morphological realization of structural case assigned by any given structural case-assigning head depends on the assignment of case by other structural case-assigning positions in the same domain.<sup>27</sup> For instance, in a dative-subject construction in Icelandic, the object receives nominative case even though its syntactic behavior is entirely typical for an object, because nominative case is not assigned elsewhere in the clause (see also Schütze 1997). Similarly, Harley claims that in Japanese causatives, the embedded subject always checks case against the same structural case-assigning position no matter whether it receives dative or accusative. The morphological spell-out of the case on the embedded subject depends on what other structural cases are assigned in the clause. Consequently, causatives of intransitives have accusative-marked embedded subjects, while causatives of transitives have dative-marked embedded subjects, because the accusative form is used by the embedded object.

For our present purposes, it's not crucial whether the case-checking features project their own functional projection (AgrP) or not (though see footnote 10). We illustrate the system under the assumption that AgrPs are not present (Chomsky 1995).<sup>28</sup> We assume, standardly, that there is a structural case feature associated with finite TP and also with vP. Consequently, *fare*, as a v<sup>o</sup>, has its own [+CASE] feature. The embedded vP in an FI also has its own [+CASE] feature, as does the matrix TP. The embedded subject and embedded object check their features via Agree (Chomsky 2000), with the closest available [+CASE] feature. The morphological realization of these features is determined relativistically at spell-out, as in Harley (1995), Bobaljik (1995). The structure and case assignment for two cases of FI are illustrated in (39) and (40).<sup>29</sup>



In FP clauses, on the other hand, there are only two structural cases assigned, because only the matrix vP and the matrix TP are present; no embedded vP occurs. This is illustrated in (41):



Note especially that in the FP the accusative case on the embedded object is checked by the structural case features of *fare*, while this is not true in the FI, where case on the embedded object is checked by the embedded  $v^{\circ}$ . This has significant implications for our analysis of passives of causatives, presented in § 7.

The causatives of unergative intransitives are particularly crucial for our analysis. We saw above that in those cases the embedded subject receives accusative marking. This poses a problem for Ippolito (2000)'s analysis, in which Causees occur in the specifier of an Applicative phrase selected by *fare*; in the transitive cases, this Applicative head assigns lexical dative case to its specifier. Why should it fail to do so when the complement is intransitive? Ippolito's analysis cannot explain the absence of dative case in causatives of intransitives, whether unergative or unaccusative. We argue, on the other hand, that the embedded subject of the lower predicate is in its usual position. The variation in case-marking between transitives and intransitives is simply expected as explained above.

Landau (2002), in the context of a discussion of psych predicates, proposes that in Romance FIs the case assignment of all the DPs in the clause is taken over by the causative verb, even the accusative on the embedded object. His explanation for the poorness of causatives of object-experiencer psych predicates in examples like those in (21) above is that

such psych-predicates assign inherent accusative case to their experiencer objects, and that inherent case clashes with the structural accusative assigned by the causative predicate.

Landau's account of these facts has at least two problematic properties. First, the embedded vP in FIs of normal transitive verbs loses its structural accusative case feature when causativized; it's not clear why this is possible, or alternatively why leaving it unchecked doesn't result in a crashed derivation. Second, it's insufficiently general: Landau's account does not extend to the ungrammaticality of non-intentional embedded subjects. For us, the ungrammaticality of examples like (21)d has a different source. As discussed above, transitive object experiencer verbs like *disturbare* or *assorbire* require a  $v_{\text{CAUSE}}$  vP, and hence are incompatible with an FI. Our account unifies the ungrammaticality of (21)d with that of examples like (20). Landau could not, in principle, appeal to a case-based account of (20), and would have to look elsewhere to explain them in a unified way.

One reason that Landau ascribes assignment of the embedded accusative case to the matrix causative verb is that when the matrix causative is passivized, the embedded object becomes the derived subject. On the face of it, therefore, it appears as if the passivization is working as usual, suppressing the external argument of *fare* and absorbing its internal accusative case. This is not possible on our analysis, in which the embedded accusative of the FI is assigned by the embedded vP. We argue that passives of causative verbs have been misanalyzed: in fact, there are no passives of FI causatives. We turn to this in the next section.

## 7 Passives of causatives

The primary obstacle to a straightforward structural-case account of the Italian causative is the fact that the dative-marked embedded subject of the FI cannot passivize. In the equivalent construction in Japanese, which shows an identical dative/accusative alternation, passivization of the embedded subject is acceptable (Kuroda 1965 et seq.), as predicted by the structural case account. When *-rare*, the passive morpheme, is attached outside *-sase*, the causative morpheme, the embedded dative subject becomes the derived nominative subject, as shown in (42):

- (42) Tanako-ga pizza-o tabe-sase-rare-ta  
Tanako-NOM pizza-ACC eat-CAUS-PASS-PAST  
“Tanako was made to eat pizza”

In Italian, on the other hand, this is not the case. The apparent paradigm of passivization of Italian causatives is the following:

- (43) a. embedded accusative objects of transitive verbs passivize:  
Il libro fu fatto leggere a Mario (da Gianni).  
The book was made read to Mario<sup>30</sup> (by Gianni).  
“Mario was made to read the book (by Gianni).”
- b. embedded accusative subjects of intransitive verbs passivize:  
Il pacchetto fu fatto arrivare (da Gianni).  
The packet was made arrive (by Gianni).  
“The packet was made to arrive (by Gianni).”
- c. embedded dative subjects of transitives do not passive:  
\*Maria fu fatta mandare un pacchetto (da Gianni).  
Mary was made to send a packet (by Gianni).

Crucially, (43)c is ungrammatical. The usual assumption in treating this Italian paradigm has been that the passive operation can only absorb accusative case, and hence will leave unaffected any dative-marked argument.

These facts are *prima facie* problematic for an account according to which the dative-marked embedded subject is receiving structural case, particularly the same structural case as an accusative-marked embedded subject. First, if the dative embedded subject is receiving structural case in the same way and from the same position that an accusative embedded subject does, then we expect the dative embedded subject to be able to become the nominative subject of the passive, as in fact is the case in Japanese. In Italian, this prediction is not borne out. Second, in (43)a we see that the accusative embedded object in a clause with a dative embedded



subject can be the subject of the passive, apparently stranding or skipping the dative embedded subject. In the case system proposed here, the embedded object of an FI receives its accusative case from the embedded  $v^{\circ}$ , not the matrix *fare*. Hence, the embedded object of an FI should not be able to become the derived nominative subject of a passivized *fare*. This prediction appears not to be borne out either. How does the account solve these two problems?

### 7.1 *FI does not passivize*

The solution begins to appear when we consider some previously unobserved restrictions on the kinds of intransitive verbs that can appear in the passive of a causative. Passives of causatives of unaccusatives like *arrivare*, as in (43)b above and (45) below, are perfect, while passives of causatives of true unergatives are bad, as shown in (44):

- (44) a. \*Marco è stato fatto telefonare (da Gianni)  
 Marco is been made telephone (by Gianni).  
 “Marco was gotten to telephone (by Gianni).”
- b. \*Marco è stato fatto ridere (da Gianni).  
 Marco is been made laugh (by G.).  
 “Marco was gotten to laugh (by Gianni).”
- c. ??Marco è stato fatto piangere (da Gianni).  
 Marco is been made cry (by Gianni).  
 “Marco was gotten to cry (by Gianni).”
- (45) a. Marco è stato fatto partire.  
 Marco is been made leave.  
 “Marco was gotten to leave.”
- b. Marco è stato fatto cadere (da Gianni).  
 Marco is been made fall (by Gianni).  
 “Marco was gotten to fall (by Gianni).”

- c. Il pacchetto fu fatto arrivare (da Gianni).  
 The package was made arrive (by Gianni).  
 “The package was gotten to arrive (by Gianni).”

When we look at the passivized causative of a verb like *saltare*, ‘jump’, which can mean either unergative ‘jump’ or unaccusative ‘explode’, only the unaccusative version is acceptable:

- (46) a. Il ponte Vecchio fu fatto saltare.  
 The Vecchio bridge was made to explode.
- b. ?? Marco fu fatto saltare.  
 Marco was made to jump.

A Google search for *è stato fatto ridere* ‘was made to laugh’ and *è stato fatto piangere* ‘was made to cry’ turned up no hits, while unaccusatives such as *è stato fatto partire* ‘was made to leave’ turned up between 150 and 500 each. Further, *è stato fatto saltare* ‘was made to jump/explode’ had many hits on the ‘explode’ meaning but none on the ‘jump’ meaning.<sup>31</sup>

This difference, as far as we know previously unnoticed in the literature, constitutes additional evidence for the unergative/unaccusative distinction.<sup>32</sup> Given the system of assumptions proposed here, including the Hale and Keyser-style treatment of unergatives and unaccusative verbs, this pattern of passivizability shows that FIs cannot passivize.

In Hale and Keyser’s system, unergative intransitives are dominated by a vP headed by  $v_{DO}$ . Hence, when an unergative verb appears under *fare*, that *fare* construction must be an an FI, since the unergative vP must be included to introduce the Causee. In contrast, the single argument of an unaccusative verb is the sister of the main verb. Causatives of unaccusatives, therefore, may be FPs (without any embedded vP under *fare*), while causatives of unergatives may not. When an unaccusative verb appears in an FP causative, the nominalized unaccusative introduces the internal argument as usual, and *fare* checks its accusative case.

The paradigm of facts exhibited above, then, is telling us that causatives of FIs cannot passivize. If passives of FIs were possible, we would expect causatives of unergative verbs to passivize just as well as causatives of unaccusatives.

The inability of FI *fare* to passivize makes sense when we consider what exactly the operation of passive consists of in a vP framework. Passive formation in a language like Italian involves replacing an agentive vP with a non-agentive one—changing out the Voice head, in Kratzer’s terms. The verbal participle *fatto* which occurs in the passive must not itself be a v°, but a V°—a *main* verb, in other words. When the verb *fare* is passivized and consequently shows up as a participle, it is main verb *fare*, not the light verb.

In our analysis, we have proposed that the *fare* of the FI is a light verb—the realization of an external-argument-selecting v°. If one were to try to passivize a *light* verb, there would be no residual participle. That is, a passive of the FI is impossible since it would involve switching v° heads from *fare* to something else, and no participial V residue would remain.

Is there any reason to think that the FP *fare* is different? We have so far also treated it as a light verb. However, since we have proposed that it takes a nominalization as its complement, the FP *fare* has a lot in common with the *fare* that occurs in simple SVO constructions, i.e. with ‘main verb’ *fare*, as in *Gianni ha fatto una torta*, ‘Gianni has made a cake.’ This *fare* is, of course, passivizable: *Una torta fu fatta da Gianni*, ‘A cake was made by Gianni’.

In essence, because the v° *fare* of the FP takes a nominal complement, it syntactically resembles main verb *fare*.<sup>33</sup> The *fare* of the FI, on the other hand, taking a predicative vP complement, is a true light verb—a functional element. How can we encode this distinction within our framework? What does it mean to say an item has ‘lexical content’?

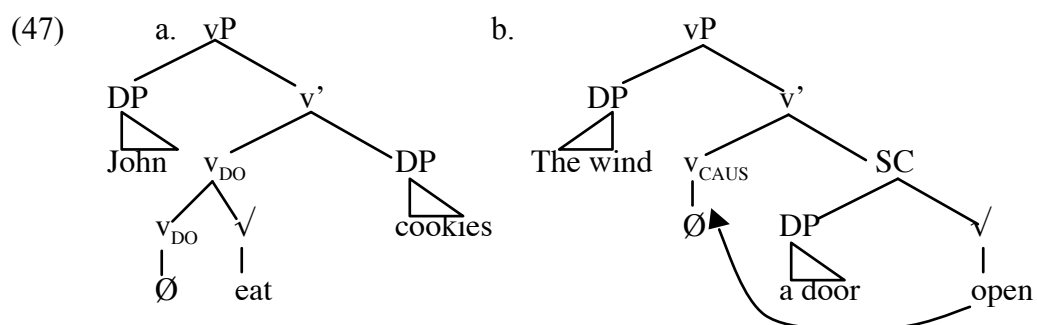
## 7.2 *Lexical vs. functional items*

An increasing body of literature proposes an ‘exo-skeletal’ approach to at least some argument structure alternations (Borer 2005). On such an approach, the lexical content of a verb is provided independently of its argument structural content. The syntactic frame and its functional heads determine the event structure and the number of arguments that are syntactically present, and the verb root is inserted into the structure to provide it with

conceptual semantic content: the overall ‘verb class’, however, are determined by the syntactic infrastructure associated with it.

As should be clear from the above discussion, we endorse a syntactic infrastructure that may include at least a vP and its complement, which may be of various syntactic categories. With Hale and Keyser (1993, 2002), Harley (1999, 2001), Mateu (2002), McIntyre (2004), Zubizarreta and Oh (2004), Marantz (2005), and Tomioka (2005), we adopt a syntactic implementation of the ‘manner incorporation’ operation as one way of providing the exo-skeleton with lexical content. A root may be Merged directly with certain functional heads, including  $v^\circ$ , in which case it is interpreted as an adverbial modifier of the  $v^\circ$ —a ‘Manner’ element, in lexical-conceptual structure terms. One classic paradigm for which this analysis seems admirably suited are the manner-of-motion alternations first noted by Talmy (1985).

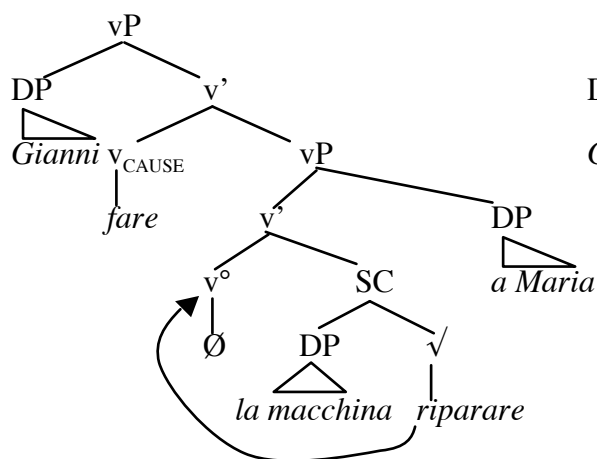
Folli and Harley (2005) adopt this type of approach to the consumption-verb paradigm described above (see § 4.1). There, the lexical content of a verb of consumption such as *eat*, in its canonical use, is inserted into the structure as the manner modifier of a  $v_{DO}$ , which explains the animacy-related restriction on the external arguments of such verbs. This contrasts with the source of the lexical content of verbs that name changes of state, such as *open*, which enter the structure as the predicate of the result-state small clause of  $v^\circ$  (see, e.g., Hoekstra and Mulder 1990). These two structures are illustrated in (47):



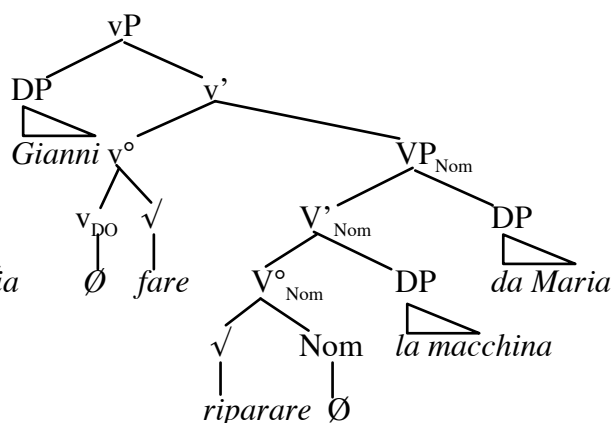
In our analysis of causative constructions with *fare*, we have so far placed *fare* under the  $v^\circ$  node without making explicit whether it is a lexical element, modifying a  $v^\circ$  as  $\sqrt{eat}$  is doing in (47)a above, or a functional element, itself spelling out the content of  $v^\circ$ , as the null morpheme  $\emptyset$  is doing in both trees in (47) above, and as we assume *-sase* does in Japanese (see Harley 1995). In fact, we wish to claim that this constitutes the FP/FI distinction: in the FP and

in regular creation-verb uses, *fare* is a lexical element, a root inserted to modify a null  $v_{DO}^{\circ}$  head. In the FI, on the other hand, *fare* is a functional element, itself spelling out the  $v_{CAUSE}$  content.<sup>34</sup> The final structures we adopt for FI, FP and creation-verb *fare*, then, are in (49).

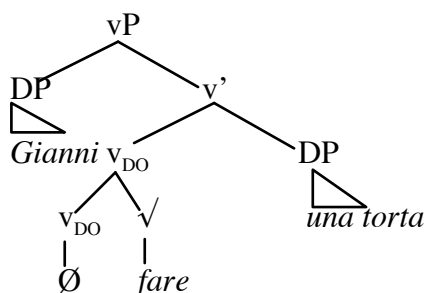
(48) a. FI *fare*



b. FP *fare*



c. Creation *fare*



When a causative is passivized, as we note above, the participle *fatto* guarantees that we are dealing with ‘main verb’ *fare*. What this means, in this framework, is that the participle is formed by merging a participial morpheme with a root element (or possibly a slightly larger constituent which itself contains a root element, see, e.g. Embick 2004). Because FI *fare* is not a root element but a functional vocabulary item which is deterministically inserted to realize the  $v^{\circ}$  head itself, it cannot be the input to a passivization. There is no passive of an FI *fare*.<sup>35, 36</sup>

### 7.3 *Dative arguments in passive causatives*

If the above line of reasoning is correct, then the passives of causatives of transitive verbs with *a*-phrases, given above in (43), cannot be what they seem—they cannot be passives of FI causatives, because such passives are impossible. Example (43)a is repeated below:

- (49) Il libro fu fatto leggere a Mario (da Gianni).  
The book was made read to Mario (by Gianni).  
“Mario was made to read the book (by Gianni).”

Here, we seem to have a passive of an FI, with a dative-marked embedded subject which the embedded object has ‘skipped’ over into the derived subject position. Our hypothesis is that, when the *a* phrase is present in a passive of a causative, a benefactive has been formed on (the passive of) an FP. Notice that the sentences below show that a benefactive of an FP is fine:<sup>37</sup>

- (50) a. Gianni gli ha fatto riparare la macchina da Maria/\*a Maria.  
Gianni to.him has made repair the car by Maria/to Maria.  
“Gianni had the car repaired by Maria for him.”
- b. Gianni ha fatto riparare la macchina a Mario ?da Maria<sup>38</sup>/\*a Maria.  
Gianni has made repair the car to Mario by Maria/\*to Maria.  
“Gianni had the car repaired by Maria for Mario.”
- c. le è stata fatta riparare la macchina da Maria.  
to.her was made repaired the car by Maria  
“For her, the car was made to be repaired by Maria.”

Because the *da*-phrase in an FP passive is optional, it can be omitted from examples like (49), which leaves a sentence that appears to be a passive of an FI, but in fact is not.<sup>39</sup>

In support of this hypothesis, notice that in the passives of FP with transitives we can again use arguments from semantic fit to test the beneficiary role played by *a*-phrases. We said

that in the active causatives, the dative embedded subject is made to perform the caused action. In the passive, however, the apparently stranded dative receives a more benefactive/malefactive reading. We can test this difference again by contrasting pragmatically loaded scenarios:

- (51) a. La torta fu fatta assaggiare a Gianni  
The cake was made to taste to John
- b. La ferita fu fatta disinfettare alla infermiera  
The wound was made to disinfect to the nurse.

In (51)a, a clear benefactive, the passive with an *a*-phrase is perfectly acceptable because Gianni is a suitable beneficiary of tasting. In (51)b, the *a*-phrase can be easily interpreted if a malefactive reading is assigned to it, since it is easy to imagine that a nurse might be inconvenienced in such a scenario, say by being ordered to disinfect a wound. A benefactive interpretation is difficult to get because it is contextually difficult to imagine a situation where a nurse benefits from disinfection of someone else's wound. As noted by a reviewer, however, readings of these passives on which the *a*-phrase is a straightforward Causee are not impossible. We assume, with many others, that the relationship between an applied argument and the event to which it is related can be any contextually appropriate one. The phenomenon is similar to the many possible relationships between *Mary* and *(the) reading of Pride and Prejudice* in the possessed DP *Mary's reading of Pride and Prejudice*.

Additional support for the notion that passives of causatives (with or without *a*-phrases) are FPs, rather than FIs, comes from the following set of examples, which illustrate a restriction on the content of an optional *da*-phrase expressing the matrix agent of *fare*. Such a *da*-phrase may not contain a Causer argument, just as in the active form, an FP causative may not have a matrix Causer external argument of *fare* (see example (27) above).

- (52) È stato fatto rompere il tavolo (a Marco) da Maria/\*dalla rabbia.  
was made to break the table (to Marco) by Maria/by rage.  
“A table was gotten broken (on Marco) by Maria/by rage.”

The ill-formedness of including *dalla rabbia*, ‘by rage’, as the cause of the event is not due to any ban on Causer arguments appearing in *da*-phrases. Sentences such as *Gianni fu portato al suicidio dalla rabbia*, ‘Gianni was driven to suicide by rage’ are perfectly good passives, corresponding to actives like *La rabbia ha portato Gianni a suicidio*, ‘Rage drove Gianni to suicide.’ *La rabbia* cannot be the matrix subject of an FP causative, for reasons discussed above in § 5, and is equally impossible as an adjunct *by*-phrase in a passive of a causative.

We conclude that passives of causatives are all FP passives, and that the *a*-phrase in passive causatives, when present, is an introduced applicative argument, not an external argument. (See Pytkanen 2002 for a treatment of the introduction of applicative arguments).

One last problem then has to be addressed. Why can’t benefactive arguments be the subject of passives? We follow Ippolito (2001) and Pytkanen (2002) in assuming that a benefactive argument receives lexical dative case from the applicative head which introduces it, and hence cannot receive nominative case when the FP is passivized.<sup>40</sup>

Of course, since the *da*-phrase in the FP is optional, the availability of benefactives of the FP means that most *DP fare V DP a DP* strings have two analyses: an FI one and an ((FP + benefactive) - *da*-phrase) one, which we believe is the basis of some previous misanalyses of FIs constructions as benefactives.

## 8 Conclusion

Previous analyses of Italian causatives have tended to approach the problem from one of two directions: a lexicalist approach, where the various types of causative are formed via manipulations of theta-grids, and a case-based approach, where the causative verb takes over the case domain of the embedded predicate. Above, we have argued against specific aspects of extant lexicalist approaches. Here, we pause to consider in somewhat more detail purely case-based approaches like that of Landau (2002).

We have seen above how important the details of case-assignment are in any adequate account, and all the authors discussed above consider the problem to some extent. Nevertheless,



attempting an analysis of the full range of causative constructions using case theory as the primary mechanism doesn't account for the contrasts that have been presented in this paper.

In particular, we have seen that there are several cases where the structural semantics of the embedded clause plays a significant role in determining the grammaticality of the causative construction. In particular, the difference in passivizability of unergative and unaccusative embedded verbs is completely unexpected on a purely case-based approach; the embedded subject of any intransitive verb receives accusative case. Clearly, the interaction of semantics and structure is implicated by this constellation of facts.

Similarly, we have proposed that the impossibility of having inanimate subjects of embedded transitive verbs has the same source as the ungrammaticality of embedded object-experiencer psych verbs. This pattern could not be captured by a purely case-based approach.

In this paper, a structural treatment of theta-roles has been implemented via a refinement of the little-*v* hypothesis. This refinement, in conjunction with a particular treatment of case assignment, explains a number of restrictions on matrix and embedded subjects in causatives, and predicts the appearance of an unergative/unaccusative distinction in passive causatives. The adoption of the little-*v*<sup>o</sup> hypothesis enables us to eliminate lexical operations on theta-grids or lexical semantic structure; rather all the observed differences fall out from the interaction of the meanings attached to particular syntactic structures (contributed by the primitives in these structures) and the Encyclopedic semantics and lexical specifications on the roots themselves. In this last regard, we differ from more radical constructionalist approaches like that of Borer (2004), in which lexical restrictions play no role. Rather, we adopt a position closer to that of Marantz (1997) or Ramchand (2001). The observed patterns of meaning/structure interaction, then, are captured without recourse to an independent rule component in the lexicon, and at the same time allow us to avoid the problem of massive overgeneration.

## Notes

\* This paper has benefited from the input of many audiences and individuals. Parts of the analysis have been presented at the 2003 North American Syntax Conference, the 30th *Incontro di Grammatica Generativa*, the 23rd West Coast Conference on Formal Linguistics, the 2004 CASTL Workshop on Argument Structure, and at the University of York in 2004, whose

audiences provided much valuable feedback. We also would like to thank Elena Anagnostopoulou, Dennis Delfitto, Marcel den Dikken, Andrea Moro, Gillian Ramchand, Marc Richards, Peter Svenonius, and Tarald Taraldsen for their helpful suggestions on previous versions. Two LI reviewers provided extensive feedback, which has been invaluable. All errors and faults remain our responsibility. Folli’s work was supported by postdoctoral fellowships from the University of Arizona and the British Academy, and our collaboration by a British Academy International Joint Activities Grant and Fitzwilliam College in Cambridge.

<sup>1</sup> Another fact which we take to indicate the functional (rather than lexical) status of Italian *fare* is that it blocks the appearance of clitic *si* even with inherently reflexive verbs such as *lavarsi*, ‘wash’ —in this regard, it appears to be interacting with the morphological representation of the argument structure of its complement verb. However, this effect does not carry over to French *faire* or Spanish *hacer*, as noted by Burzio 1981 and Zubizarreta 1985 et seq. This difference leads Zubizarreta to conclude that causative verbs in French and Spanish are main verbs, while in Italian they may only be a morphosyntactically affixal verb. We in fact come to the opposite conclusion based on facts from passivization of causatives; see discussion in § 7.

<sup>2</sup> A reviewer notes that in the FP-type causative, it is also possible to mark the Causee with the preposition *de*, ‘of’. We do not address these cases here.

<sup>3</sup> See Zubizarreta (1985:270-72) for discussion. Interestingly this does not hold in Italian:

- (i) Il presidente fece alzare la mano da cinque dei suoi quando arrivò il momento decisivo  
 The president made raise the hand by five of his when arrived the moment decisive  
 “The president had five of his men raise their hand in the decisive moment.”

This is in fact expected given that Italian does not exhibit the possessor-raising behaviour in *raise-the-hand* constructions that French does. In French, an inalienable possession relation between the subject and a non-possessive-marked object of a verb like *lever*, ‘raise’, triggers unaccusative syntactic behavior, as shown by the auxiliary choice in (ii):

- (ii) Jean<sub>i</sub> s’est/\*a levé la main<sub>i</sub>  
 John<sub>i</sub> REFL-is/\*has raised the hand<sub>i</sub>

In Italian, this is not the case; transitive *alzare* ‘raise’ (and similar verbs) never shows unaccusative behaviour even when there is inalienable possession between subject and object; it takes the *avere* ‘have’ auxiliary, and doesn’t exhibit reflexive marking:

(iii) Gianni \*si è/ha alzato la mano.

John \*REFL is/has raised the hand.

Assuming that inalienable possession (and unaccusative behaviour) in these French constructions is licensed by binding of the inalienably possessed object by the c-commanding subject, inalienable possession in French FPs fails for the same reason that regular binding of the embedded object fails in the FP (Burzio 1985:265; see example (5), as discussed below and in § 4). Because Italian does not syntactically implement inalienable possession via binding in the equivalent constructions, these constructions show no FP/FI distinction when causativized.

<sup>4</sup> This is true for non-passivizable verbs in Italian as well. Consider the verb *avere*, ‘to have’: It resists passivization (ii) and is fine embedded in an FI but not in an FP (iii):

(i) Maria ha un libro.

Maria has a book.

(ii) \*Un libro è avuto da Maria.

\*A book is had by Maria.

(iii) Gianni ha fatto avere un libro a Maria/\*da Maria.

John has made have a book to Maria/\*by Maria.

We will return to discuss our account of these facts in § 4.2 below.

<sup>5</sup> As discussed in footnote 3, the unlicensability of inalienable possession constructions between the Causee and the embedded object in French FPs also follows from the structural requirements imposed by binding.

<sup>6</sup> Guasti (1993), on the other hand, follows Burzio (1986), who was working under the assumption that external arguments were projected as daughters of S, rather than in Spec-VP. For Burzio, then, FP causative formation involves embedding a simple bare VP; the FI involves a small clause formed of the Causee NP plus the bare VP. Burzio’s treatment is the closest in spirit to the vP-based hypothesis adopted by Ippolito, Landau and in the present work.

<sup>7</sup> As noted above, Guasti (1993:50) accounts for this possibility by proposing excorporation of *fare* from the complex  $V^\circ$  created by incorporation. Excorporation, however, is theoretically problematic, and Ippolito's approach accounts for these facts without it. In addition, notice that in this example the adverbial *ancora una volta*, 'again one time', can take scope only over the embedded verb, *riparare*, 'repair.' On an incorporation account, *riparare* has moved into the matrix  $V$  position, and a preceding adverbial should therefore only be able to take scope over the entire caused event. In Ippolito's analysis, as on the present one, both scopes are predicted to be possible, because the adverb could adjoin to either the embedded or the matrix  $vP$ .

<sup>8</sup> Although this is an unusual approach, we feel there is independent justification for it within the  $vP$  realm in Italian. In particular, in places where we expect to see small-clause like structures, the subject of the small clause is on the right in the unmarked case in Italian.

- (i) a. John made Mary happy.
- b. Gianni ha fatto felice Maria.

Of course, movement of the lower  $VP$  or its subparts to the left — presumably to a position c-commanding the Causee — is also an option for deriving the observed word order; such an approach was first proposed by Burzio (1986), and is also followed by Ippolito (2000) and Kayne (2004). We feel, however, that the rightwards-specifier option is fundamentally simpler. Of course, we assume that Italian specifiers above the  $vP$  level are on the left, as usual. It might appear that even  $vP$  specifiers are on the left, given that embedded subjects in transitive complements of perception verbs appear before the embedded verb, as in (i) below:

- (i) Gianni ha visto Maria dare un libro a Paolo.  
      Gianni has seen Maria give a book to Paulo.  
      “Gianni saw Maria give a book to Paulo.”

The embedded subject and the embedded object in such examples, however, bear accusative case, and no dative~accusative alternation depending on transitivity of the embedded verb is possible, unlike in causatives (see discussion in § 6 below). There are thus clearly two case-marking domains with perception verbs. Guasti (1993) argues that verbs of perception take a larger complement than causative verbs, an  $AgrP$  rather than a bare  $VP$ , based on evidence from adverb placement, negation and floating quantifiers. We conclude with Guasti that these are

cases of ECM. The preverbal embedded subject is in the leftwards specifier of a higher accusative-case assigning projection introduced by the matrix perception verb. (Although sentences like *Ho visto correre Gianni*, ‘(I) have seen run Gianni’, are as acceptable as *Ho visto Gianni correre*, as noted by a reviewer, and are apparently problematic for a left-spec ECM analysis, the postverbal subjects in such sentences have a distinct interpretation—in these cases, the verbal activity is interpreted as a characteristic property of the postverbal subject, suggesting a different syntactic structure is in play.) Thanks to Elizabeth Martínez.

<sup>9</sup> For a contrasting approach, see Den Dikken and Longenecker (2004), who propose that both the *a*-phrase and the *da*-phrase are embedded realizations of the Causee, in a sense reminiscent of Pesetsky (1995)’s Cascade structures. Note that it is not clear how such an approach can capture the different binding effects between the FI and FP noted by Burzio (1986), since the c-command relationships between Causee and embedded object are the same in both.

<sup>10</sup> If we assume movement of the object to a higher case-checking position, the object, will, in contrast, c-command the *da*-phrase, producing the observed asymmetric binding relation in the other direction, as observed by Ippolito (2000: 13):

- (i) Ho fatto rimproverare Arturo dalla propria famiglia.  
 I made scold Arturo by.the own family.  
 “I had Arthur scolded by his own family.”

<sup>11</sup> The FP and FI also differ when combined with reflexive clitic *si*, which can express an embedded argument in an FP but not in an FI, as illustrated below:

- (i) Gianni si è fatto lavare da Maria/\*a Maria.  
 Gianni SE is made wash by Maria/to Maria.  
 “Gianni got himself washed by Maria/\*Maria to wash him.”
- (ii) Gianni si è fatto scrivere una storia da Maria/\*a Maria.  
 Gianni SI is made write a story by Maria/to Maria.  
 “Gianni got a story written to him by Maria/\*got Maria to write a story to him.”

Note that in (ii), *si* represents a Goal argument of *scrivere*. We speculate that the failure of *si* to allow an FI may have to do with a Lethal Ambiguity effect (McGinnis 2004) that arises between the Causee in the embedded Spec-vP and the further embedded Goal or Theme which

*si* represents. Such an effect would not arise in the FP construction, on this account, because the *da*-phrase does not intervene between the matrix subject and embedded arguments, and the embedded vP is absent. For some discussion of similar examples, see Baauw and Delfitto (2005). The facts in this domain are evidently quite complex; we acknowledge that a full account of the interaction of reflexive *si* and *fare* will have to await further investigation.

<sup>12</sup> The remarkable ability of causative/inchoative change-of-state predicates to take non-intentional external arguments (such as events) has been emphasized in previous work; see Chierchia (2004:55); our account ties this ability to the type of v° involved in such predicates.

<sup>13</sup> The switch between an intentional and non-intentional action associated with the appearance of a small clause can be observed in the pair of examples below:

- (i) John threw the muffin.
- (ii) John threw up the muffin.

<sup>14</sup> Causatives of certain verbs of motion do require an animate Causer argument (Reinhart 2002, Levin and Rappaport 1995), as noted by a reviewer:

- (i) Sue/\*The leash jumped the horse over the fence.
- (ii) John/\*The music waltzed Mary across the floor.

This property is connected to the semantics of the manner-denoting verb root in these manner-of-motion causatives; note that if the manner-denoting root is *roll*, no such requirement holds:

- (iii) John/The tide rolled the log up the beach.

See Folli and Harley (2006) for an extended treatment.

<sup>15</sup> Of course, as a reviewer notes, verbs may also require animacy of their internal arguments, if their meaning entails it; object-experiencer verbs, for instance, require intentional objects, and the objects of verbs such as *elect*, *appoint*, *nominate*, *tease*, *convict* must be animate.

<sup>16</sup> Jackendoff's (1987) test for external arguments using the English verb *do* in the frame *What X did was ...* is not useful for us here because it collapses the notions Agent and Causer, and also some types of arguments we would consider Themes, as in *What the rock did was roll down the hill*. Thanks to a reviewer for pointing out the relevance of Jackendoff's observation.

<sup>17</sup> As noted by a reviewer, causative verbs such as *open* or *break*, which we take to be typical examples of small clauses embedded under v<sub>CAUSE</sub> (see example (47)) have also been treated as

complex predicates, involving no more syntactic structure than any other transitive verb (see, e.g. Neeleman 1994). Since we are adopting a small-clause analysis of change-of-state predicates in general, we will not consider this possibility any further in this paper.

<sup>18</sup> Notice that this is *not* the target/subject matter effect observed by Pesetsky 1995, whereby lexical causatives of intransitive subject-experiencer verbs may not co-occur with so-called ‘target/subject matter’ PPs which are fine in the intransitive form. That effect, in Italian, exists with the (object-experiencer) lexical causatives of such intransitive verbs, as it does in English, and does not appear with *fare* causatives of the intransitive form of the verb:

- (i) Gianni é preoccupato per la guerra in Iraq.  
Gianni is worried for the war in Iraq.
- (ii) La guerra in Iraq preoccupa Gianni.  
The war in Iraq worries Gianni.
- (iii) \*Il programma televisivo ha preoccupato Gianni per la guerra in Iraq.  
The television program has worried Gianni for the war in Iraq.
- (iv) Il programma televisivo ha fatto preoccupare Gianni per la guerra in Iraq.  
The television program has made worried Gianni for the war in Iraq.

The T/SM restriction is present in the lexical causative *preoccupare*, which is fine without the T/SM PP in (ii), but poor with it in (iii). When the external cause is introduced by *fare*, however, the embedded intransitive *preoccupare* co-occurs with its T/SM PP felicitously (iv).

<sup>19</sup> A reviewer notes that with certain object-experiencer verbs such as *disturbare* ‘disturb’ and *spaventare* ‘frighten’, an intentional Agent subject is certainly possible, as shown by the possibility of modifying such verbs with Agentive adverbs like *deliberatamente*, ‘deliberately’ (cf. Arad 1998), as in (i) below:

- (i) Marco ha spaventato Maria deliberatamente.  
Marco has frightened Maria deliberately.

Note that as soon as the subject of these flexible verbs becomes Agentive in this fashion, these verbs *can* be embedded felicitously under FI *fare*, as shown in (ii):

- (ii) Gianni ha fatto spaventare Maria \*al film/a Marco.  
Gianni has made frighten Maria to.the film/to Marco

This is felicitous in a scenario where Gianni has told Marco to hide behind the door and jump out at Maria on purpose. On such a reading, Marco is no longer a simple Causer, and in fact, we claim the verb has been reanalyzed as containing  $v_{DO}$ . Only certain object-experiencer psych verbs have lexical content which permits such reanalysis; *assorbire*, ‘absorb’, and *preoccupare*, ‘worry’, for instance, reject it.

<sup>20</sup> A reviewer notes that if the subject of *fare* is a potential immediate cause with influence over the entire embedded event, inanimate subjects of unergative verbs can be obliged to perform an unergative event, as in the following example:

- (i) Il tornado fece suonare le campane della chiesa  
The tornado made ring the bells of the church.

<sup>21</sup> As noted by Guasti (1996:308), the claim that the embedded VP is a nominal may explain why the so-called ‘Affectedness Constraint’ appears in the FP construction, since it is also observed in ‘passive nominalizations’. (See Vecchiato 2004 for some relevant discussion of this constraint.) Guasti (1990) decomposes the infinitive into a verb root plus a nominalizing/infinitivalizing suffix *-re*; we also assume that some nominalizing head has attached to the verb root, but remain agnostic about its realization.

<sup>22</sup> This has a semi-acceptable irrelevant reading where *da* is interpreted as “through”.

<sup>23</sup> Contra Guasti (1996:308), it seems clear that such verbs (*temere*, ‘fear’, *sentire*, ‘hear’, etc.) *can* occur in the FP, because they may appear in a causative without any Causee expressed whatever:

- (i) Cassandra ha fatto temere un disastro.  
Cassandra has made fear a disaster.

Although Guasti (1990) acknowledges the grammaticality of these examples, she takes them to show that an embedded dative *pro* is realizing the Causee, and these are therefore FI constructions. If this is true, however, then we cannot distinguish between FIs with *pro* Causees and FPs without their optional *by*-phrases, and additional tests are needed to settle the question.

<sup>24</sup> This contrast is also discussed by Den Dikken and Longenecker (2004), along with the following interesting examples, also discussed in Guasti (1993) and Marcantonio (1979):

- (i) Il padrino/quell’affare ha fatto guadagnare molto denaro a/\*da Ugo.



The godfather/That deal has made earn much money to/by Hugo.

“The godfather/That deal got Hugo to earn a lot of money.”

(ii) Maria ha fatto vincere il premio a/\*da Franco.

Maria has made win the prize to/by Franco.

“Maria got Franco to win the prize.”

Den Dikken and Longenecker (2004) treat these examples together with those discussed in the text above. However, notice that while the contrast with *vedere* ‘see’ discussed above is present no matter the tense of the causative verb (iii), the sentences in (i) and (ii) become grammatical when the causative is in the future tense (iv and v):

(iii) Gianni farà vedere l'eruzione a/\*da Maria.

Gianni will.make see the eruption to/by Maria.

“Gianni will get Maria to see the eruption.”

(iv) Il padrino farà guadagnare il denaro necessario ai/dai gangster.

The godfather will.make earn the money necessary to/by the gangster.

(v) Maria farà vincere il premio a/da Franco.

Maria will.make win the prize to/by Franco.

Consequently it is clear that the pooriness of (i) and (ii) has a different source, to do with the verb class to which they belong. We do not have an explanation for this contrast.

<sup>25</sup> As should be obvious from the above, the constraints on the addition of a *by*-phrase to a nominalization are more restrictive than the ones in passivization. In passives, the passive morphology itself implies the presence of a suppressed external argument, which is available for semantic control in sentences like *The ship was sunk to collect the insurance* (Manzini 1983). In nominalizations, on the other hand, any implication of agency has to come from the verb root itself. This may explain why even certain passivizable idioms such as *prendere la medicina* ‘ingest the medicine’, lit. ‘bring the medicine’, or *tirare i remi in barca* ‘exercise care’, lit. ‘pull the oars into the boat’ may not occur in FP causatives with an overt *da*-phrase, but are acceptable without any expressed embedded Causee (contra Pearce (1990) and Guasti (1996)). For example, *La maestra ha fatto prendere la medicina*, ‘The teacher made the medicine be brought’, can have both the literal and idiomatic ‘ingest’ interpretation, according

to the judgment of several Italian consultants. We conclude that these are nominalized FP structures which cannot be modified by a *da*-phrase for Encyclopedic reasons.

<sup>26</sup> It is important to notice that the accusative embedded subject here is postverbal. This eliminates the possibility of a PP-postposing analysis of the rightwards embedded subject. A preverbal embedded subject is impossible:

(i) \*Gianni ha fatto Maria correre.

Gianni has made Maria run.

An incorporation account like that of Guasti's could in principle explain this ordering without appealing to rightwards specifiers, but since the incorporation account a) cannot account for the scopes available to intervening adverbs, as discussed in footnote 7, and b) does not account for the post-object order of the dative embedded subject as in (10)a, we do not consider it here.

<sup>27</sup> For other proposals along the same lines, see Bobaljik (1995, 2005) and Alexiadou (1999).

<sup>28</sup> For discussion of case-checking implemented via AgrPs, see Chomsky (1994), Collins and Thrainsson (1993), Koizumi (1993), and Lasnik (1999), among others.

<sup>29</sup> Of course, when FI *fare* embeds an unaccusative or stative vP, no Agent argument will be present, and if Burzio's generalization were correct, the embedded  $v_{BE}$  or  $v_{BECOME}$  would have no structural case feature to be checked. Since the dependent case account was first proposed (Marantz 1991), however Burzio's generalization has come to be understood as an epiphenomenon arising from the fact that when only one case feature is checked in a clause, it is spelled out as nominative, as discussed in the text. Many examples show that in fact the case- and theta-assigning properties of the clause are distinct; to take a trivial example, *get* is perspicuously treated as unaccusative *give* (see e.g. Pesetsky 1995, Richards 2001), yet structural accusative case is clearly available to its object, presumably from  $v_{BECOME}$ . Consequently, we assume that all little  $v^{\circ}$  heads have a structural case feature available. For a more thorough discussion, see the recent overview of this literature in Woolford (2003).

<sup>30</sup> 'Mario' is intended to be the repairer, not the beneficiary.

<sup>31</sup> At the suggestion of a reviewer, we searched for other unergative verbs such as *tossire* 'cough' and *tremare* 'tremble' in passives of causatives, turning up no hits for either. The passive of the causative of *lavorare*, 'work', on the other hand, turned up a few—7 hits—which

is consistent with the intuitions of the native speakers we consulted. We have no explanation for the slight improvement with this verb, but we note that the number of hits is still two orders of magnitude smaller than the numbers for typical unaccusatives.

<sup>32</sup> As pointed out by a reviewer, Zubizarreta (1985) notices a different interesting contrast involving causatives of intransitive verbs: Only unergative verbs can appear as bare infinitives in the complement of *fare*; unaccusatives are impossible in this environment:

- (i) Ce medicament fait dormir.  
This medicine makes sleep.  
“This medicine makes one sleep”
- (ii) \*Ça fait arriver en retard.  
This makes arrive late.  
“This makes one arrive late.”

This contrast carries over to Italian. On the present analysis, sentences like (i) must be FIs, because unergatives include a  $v_{DO}$  in their argument structure. We speculate that they involve an (accusative) arbitrary *pro* Causee argument, like the *pro* objects discussed by Rizzi (1986), and that the distinction between (i) and (ii) has to do with the licensing conditions on such objects, which are known to be fairly restricted.

<sup>33</sup> Additional support for the notion that causatives of unergatives must be FI (and verbal) while causatives of unaccusatives can be FP (and nominal) comes from a contrast in the availability of anaphoric reference to the embedded infinitival in the latter case but not the former:

- (i) \*Gianni ha fatto cantare Maria, ma non lo ha visto.  
Gianni has made sing Maria, but not it has seen.  
“Gianni made Maria sing, but didn’t see it.”
- (ii) (?)Gianni ha fatto cadere il libro, ma non lo ha visto.  
Gianni has made fall the book, but not it has seen.  
“Gianni made the book fall. but didn’t see it”

If pronominals may pick up nominal elements as their antecedents, the contrast between (i) and (ii) suggests that no nominal is introduced by the infinitival unergative in (i) but that one

may be introduced by the infinitival unaccusative in (ii). See Delfitto (2005) for discussion of similar examples with perception verbs, on which these examples were modeled.

<sup>34</sup> See Wurmbrand (2004) for discussion of a similar distinction between lexical vs. functional restructuring verbs.

<sup>35</sup> In Japanese, of course, this is not the case; rather than replace the light verb *sase* and select for a participle of the main verb, the passive *v rare* simply attaches outside it, stacking vPs. The structurally case-marked dative Causee remains in the structure, and participates in the structural case-marking of the clause, becoming the nominative-marked subject. Passives of causatives of unergatives are perfectly fine in Japanese.

<sup>36</sup> In French, it has been assumed that *no* passives of causatives are acceptable (e.g. Burzio 1986), not even passives of causatives of unaccusatives:

- (i) \*Jean a été fait arriver par Marie.  
Jean has been made arrive by Marie.  
Jean was made to arrive by Marie.

One possible avenue of investigation would be an approach in which French *faire* always realizes a functional head — i.e. cannot be a main verb, and hence has no participle form. In such an analysis, passivization of causative *faire* in French would be predicted to be impossible. Bouvier (2000), on the other hand, claims that passives of causatives with singular masculine embedded objects are fine in French (e.g. *Un pantalon a été fait faire par Jean*, ‘A pair of pants was caused to be made by John’), and the problem with other such passives has to do with the defective agreement properties of the French participle of *faire*, *fait*. Such passives, then, are clearly quite restricted (it seems that the only available examples involve creation *faire* as the embedded verb). We leave this problem for future research.

<sup>37</sup> Interestingly, the subject of a passive like that in (50)c, when there is a dative clitic, may not occur preverbally:

- (i) \*La macchina le è stata fatta riparare (dal meccanico).  
The car to.her is been made repaired (by.the mechanic)

We do not have an account for this, but it may be related to the A-movement locality effects observed in Icelandic raising verbs with dative experiencers discussed by McGinnis (1998), and in Greek with dative clitics in double object constructions (Anagnostopoulou 2003).

<sup>38</sup> This sentence is grammatical, but marked. For certain speakers it improves if the beneficiary *a Marco* is in clause final position as in:

(i) ?Gianni ha fatto riparare la macchina dal meccanico, a Mario<sup>38</sup>.

Gianni has made repair the car by-the mechanic, to Mario .

“Gianni had the car repaired by the mechanic for Mario.”

What is crucial for the argument to go through is that the beneficiary argument CAN be present and this is supported by the perfect grammaticality of the example with the clitic in (50)a, suggesting that the markedness of the examples with the full DP is due to processing load.

<sup>39</sup> We can confirm that passives of FIs are impossible by attempting to passivize an FI with an embedded, non-passivizable idiom. Under the set of assumptions here, non-passivizable idioms are impossible in FPs, but not FIs, because their own  $v^\circ$  is absent in the nominalized form that occurs in the FP. If a passive of the *fare* in an FI were possible, then these idioms should continue to be interpretable in that structure, since the whole vP associated with the idiom would remain unaffected. Such idioms may not occur in passives of *fare* causatives though, even when the Causee is present in an *a*-phrase:

(i) Sono state fatte togliere le castagne dal fuoco a Marco.

were been made take.out the chestnuts from.the fire to Marco.

“Chestnuts were pulled from the fire for Marco”

“\*Marco was made to solve the problems.”

<sup>40</sup> With Pylkannen (2002), we assume that the ‘high’ dative arguments of ditransitive verbs in Italian are also introduced by this applicative head, and hence do not passivize:

(i) \*Gianni è statto dato un libro da Mario.

Gianni was given a book by Mario.

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